## WP 05-WH1412

**Revision 16** 

## CH Waste Handling Toyota Forklifts

**Technical Procedure** 

EFFECTIVE D	OATE:	08/15/19
	Gary Chisn	n
Α	APPROVED FO	R USE

THIS DOCUMENT IMPLEMENTS KE 7-5 AND REQUIREMENTS FOR THE HWFP.

# WORKING COPY VERIFICATION Revision Checked: Page Count: Name: Signature: Date and Time:

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#### **CHANGE HISTORY SUMMARY**

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
15	07/31/18	<ul> <li>DSA Rev. 6A:</li> <li>Updated SAC 5.5.1 and LCO 3.3.8 in Precautions and Limitations.</li> <li>Added LCO 3.1.2 and SR 4.1.2.1 references to Step 5.1.3.</li> <li>Added SAC 5.5.1 to Attachment 1 title.</li> <li>Removed SAC 5.5.1 from individual steps.</li> </ul>
16	08/15/19	<ul> <li>Updated JHA and affected Precautions/Limitations.</li> <li>Added Limitation 3.2.3 regarding 7.5-ton forklifts.</li> <li>Updated to current template sections.</li> <li>DSA Rev 6a Page Change 002a:</li> <li>Removed reference to SAC 5.5.8 and replaced with KE 7-5.</li> <li>Added Prerequisite Action Step 4.1.</li> </ul>

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#### 1.0 INTRODUCTION

#### 1.1 PURPOSE

This procedure provides for preoperational checks of the CH Waste Handling Toyota diesel powered forklifts at the WIPP. These forklifts are used in the underground at WIPP.

#### 1.2 SCOPE

This procedure meets the SRs 4.1.2.1 of LCO 3.1.2 SAC 5.5.1.

Performance of this procedure, or selected sections of the procedure, implements inspection requirements of the HWFP relative to the scope of, and as defined in, this document.

All actions in this procedure are performed by Waste Handling personnel.

#### 1.3 RECORDS

Records generated are handled per departmental Records Inventory and Disposition Schedules. Performance of this procedure generates the following records.

- Equipment Logbook
- EA04AD3001-SR10, LCO Surveillance Data Sheet

#### 2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
30 CFR 56, Safety and Health Standards - Surface Metal and Nonmetal Mines	✓		
30 CFR 57, Safety and Health Standards - Underground Metal and Nonmetal Mines	✓		
30 CFR 58 Health Standards for Metal and Nonmetal Mines	✓		
40 CFR 264.15, General Inspection Requirements	✓		
DOE Standard 1090-2007, Hoisting and Rigging	✓		
DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis	✓		
DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements	✓		(\$)
Hazardous Waste Facility Permit, EPA Identification No. NM4890139088-TSDF	✓		(\$)

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DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
WP 04-AD3001, Facility Mode Compliance		✓	
WP 04-AD3011, Equipment Lockout/Tagout	✓		
WP-04-AD3016, Equipment Out of Service Process		<b>√</b>	
WP 05-WH1810, Underground Transuranic Mixed Waste Disposal Area Inspections		✓	
WP 10-WC3011, Work Control Process	✓		
WP 12-IH1200, Heat Stress		✓	
WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description	✓		
WP 15-GM1002, Issues Management Processing of WIPP Forms		✓	
EA04AD3001-SR10, LCO Surveillance Data Sheet		✓	
Toyota, Forklift Operator's and Owner's Manual	✓		
Harder Push-Pull Device, Operators Manual	✓		
05-WH1412-JHA, CH Waste Handling Toyota Forklifts	✓		

#### 2.1 ABBREVIATIONS AND ACRONYMS

AR	action request
CAM	continuous air monitor
CH	contact-handled
CMR	Central Monitoring Room
FSS	fire suppression system
HWFP	Hazardous Waste Facility Permit
LCO	Limiting Conditions for Operation
OOS	out of service
SAC	specific administrative control
SAS	system of active stability
SEC	Site Environmental Compliance
SR	surveillance requirement
SWB	standard waste box
TSR	Technical Safety Requirement
WHE	Waste Handling Engineer
WIPP	Waste Isolation Pilot Plant

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#### 3.0 PRECAUTIONS AND LIMITATIONS

#### 3.1 PRECAUTIONS

- 3.1.1 The TSRs contain LCOs and SACs which provide specific preventive or mitigative limits and required actions for identified accident scenarios. Failure to comply with LCOs or SACs may constitute a violation and must be immediately reported to the Central Monitoring Room Operator. The step affected by the LCO or SAC is denoted with the TSR designator in the margin, a (\$) at the beginning of the step and is followed by the LCO or SAC number in bold brackets (e.g. [LCO 3.X.X]). Applicable LCO/SAC Surveillance Data Sheets SHALL be completed as required by WP 04-AD3001, Facility Mode Compliance.
- 3.1.2 Pre-operational Checks of Vehicles/Equipment in Proximity to CH WASTE
  - [A] PRIOR TO USE, Vehicle(s)/Equipment to be operated within 25 feet of a CH WASTE FACE, in the TRANSPORT PATH when CH WASTE is present in the TRANSPORT PATH, or in the WASTE SHAFT STATION when CH WASTE is present in the WASTE SHAFT STATION, SHALL be inspected for the following attributes: [SAC 5.5.1]
    - Brake operation, as applicable.
    - Steering, as applicable.
    - No excessive leaks.
    - Operating lights and horn, as applicable.
    - Fluid levels are within operating range, as applicable.
    - Cleanliness.
- 3.1.3 Vehicles/equipment SHALL be controlled as follows [LCO 3.3.8]
  - [A] Liquid-fueled vehicles/equipment:
    - ATTENDED in the WASTE SHAFT STATION when CH WASTE is present in the WASTE SHAFT STATION.
    - ATTENDED in the TRANSPORT PATH when CH WASTE is present in the TRANSPORT PATH.
    - ATTENDED when within 25 feet from a CH WASTE FACE.
    - Limited to no more than two liquid-fueled vehicles/equipment within 25 feet of a CH WASTE FACE.

- 3.1.4 The FSS on UNDERGROUND vehicles/equipment selected for use SHALL be OPERABLE. **[LCO 3.1.2]** 
  - [A] An OPERABLE FSS consists of the following elements:
    - Control Panel with functional status light(s).
    - Temperature detection elements.
    - Adequately charged suppressant system.
    - Distribution system to disperse the suppressant.
    - Automatic engine cutoff capability.
- 3.1.5 The Underground Ventilation Filtration System/Interim Ventilation System SHALL be OPERABLE. [LCO 3.2.3]
- 3.1.6 When the ACTIVE PANEL, including the exhaust drift, is occupied, at least one CAM communicating with the CMR is required in the exhaust drift of the active Disposal Panel. Portable air samplers or portable CAMs are used when the CAM communication with the CMR becomes inoperable. The temporary use of portable devices and the return to service of CMR communication are managed under the Radiation Protection Program. (KE 7-5)
- 3.1.7 Forklifts equipped with SAS will operate and handle differently than similar forklifts without SAS. Operators must use caution when changing between trucks with and without SAS features. Operation of forklifts without SAS in the same manner as forklifts with SAS can result in loss of control and potential tip-over.
- 3.1.8 HWFP inspection criteria is as follows: [HWFP Table E-1]
  - Inspecting for leaks/spills
  - Deterioration: includes: obvious visible cracks, erosion, salt build-up, damage, corrosion, loose or missing parts, malfunctions, and structural deterioration.
  - Mechanical operability: means that the equipment has been checked and is operating in accordance with site safety requirements (e.g. proper fluid levels and tire pressure; functioning lights, alarms, sirens, and power/battery units; and belts, cables, nuts/bolts, and gears in good condition), as appropriate.
  - On board fire suppression system.

- 3.1.9 Noise greater than 85 dBA and head, hand, foot, and eye hazards exist during general operations. Ear plugs,hard hats, leather gloves, safety shoes, and safety glasses with side shield shall be used as needed.
- 3.1.10 Forklift use hazards exist during general operations. The Harder attachment requires approval before use, travel surface must be suitable, and ensure a designated spotter in place with a high-visibility vest, as needed.
  - The Harder attachment shall be depressurized before it is removed.
- 3.1.11 Ground control and overhead utility hazards shall be mitigated by practicing situational awareness.
- 3.1.12 •Pinch point hazards exist during general operations. Personnel are to maintain situational awareness and use leather gloves (mechanics) when appropriate.
- 3.1.13 Objects falling or moving from heights can occur when emplacing MGO. A spotter shall be used at these points.
- 3.1.14 Poor illumination hazards during general operations will be mitigated by the use of temporary lighting, cap lamps, and forklift lights.
- 3.1.15 Heat stress hazards exist while operating the forklift in the HCA.

  Personnel will obtain heat stress evaluations and follow heat stress mitigation strategy per WP 12-IH1200, Heat Stress.

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#### 3.2 LIMITATIONS

- 3.2.1 Exceeding the following load-carrying capacities of the 52-H-126 (6-ton) forklift can cause personnel injuries and/or equipment damage:
  - Long Forks: 11,400 lb. at 30-inch load center
  - Short Forks: 13,350 lb. at 24-inch load center
- 3.2.2 Exceeding the following load-carrying capacities of the (SAS equipped) 52-H-127 (7-ton) forklift(s) can cause personnel injuries and/or equipment damage:
  - SLB2: 10,470 lb. at 34.5-inch load center
  - Long Forks: 12,300 lb. at 30-inch load center
  - Short Forks: 15,400 lb. at 24-inch load center
  - HARDER: 7,300 lb. at 36-inch load center
- 3.2.3 Exceeding the following load-carrying capacities of the (SAS equipped) 52-H-007D (7.5-ton) forklift(s) can cause personnel injuries and/or equipment damage:
  - Long Forks: 11,400 lb. at 30-inch load center
  - Short Forks: 13,350 lb. at 24-inch load center
  - HARDER: 7,700 lb. at 36-inch load center

#### 4.0 PREREQUISITE ACTIONS

4.1 **IF** work will be performed in the ACTIVE PANEL, including the exhaust drift.

**THEN** at least one CAM communicating with the CMR is required in the exhaust drift of the active Disposal Panel. (KE 7-5)

 IF CAM communication with CMR is inoperable OR becomes inoperable,

**THEN** portable air samplers or portable CAMs shall be used. (KE 7-5)

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#### 5.0 PERFORMANCE

- 5.1 PREOPERATIONAL CHECKS
  - 5.1.1 **REVIEW** Equipment Logbook for outstanding deficiencies and ARs.
  - 5.1.2 **IF** a required inspection becomes delinquent, or has failed, **THEN PERFORM** the following:
    - [ A ] Immediately **NOTIFY** on-call SEC Representative and Central Monitoring Room Operator of delinquent or failed inspection.
    - [B] **SCHEDULE** and **COMPLETE** required inspection.
    - [ C ] **DOCUMENT** the following and **SUBMIT** to the SEC Manager within five working days:
      - Schedule for inspection.
      - Reason(s) why the inspection was not performed.
      - Any compensatory measures taken to offset negative impacts resulting from not performing the inspection.
      - Actions to prevent further delinquencies.
    - [D] WHE, **GO TO** WP 15-GM1002, Issues Management Processing of WIPP Forms, and **ENSURE** a WIPP form is generated.

TSR HWFP 5.1.3 (\$) COMPLETE Attachment 1, CH Waste Handling Toyota Diesel Powered Forklift Preoperational Checks prior to forklift operation at the beginning of each shift. [SAC 5.5.1] [LCO 3.1.2] [SR 4.1.2.1] [HWFP Table E-1]

- 5.1.4 **RECORD** the following in Equipment Logbook:
  - Deficiencies noted
  - Corrective actions taken (e.g., outstanding or newly generated ARs)
  - Hour/meter reading
  - Equipment number
  - Procedure number
  - Sat and/or Problems Noted
  - Amount of fluids added, if any
  - Push-pull fixture or SWB attachment, if used
  - Date and time of preoperational check
  - Signature
- 5.1.5 **NOTIFY** WHE or Waste Handling Manager of any deficiencies, and **OBTAIN** approval prior to use.
- 5.1.6 **COMPLETE** appropriate sections of WP 05-WH1810, Underground Transuranic Mixed Waste Disposal Area Inspections, that relate to this forklift.

5.1.7 (\$) COMPLETE EA04AD3001-SR10, LCO Surveillance Data Sheet, for LCO 3.1.2, SR 4.1.2.1 as found in WP 04-AD3001, Facility Mode Compliance. [LCO 3.1.2] [SR 4.1.2.1]

**TSR** 

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#### HWFP TSR

### (\$) Attachment 1 - CH Waste Handling Toyota Forklifts Preoperational Checks [HWFP Table E-1] [SAC 5.5.1]

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- 1. Deficiencies that are corrected when discovered may be considered a satisfactory check. Deficiencies that cannot be corrected require permission from the WHE prior to operating the Toyota Diesel Powered Forklift.
- 2. The inspection may be performed in any order.

	INSPECTION	CRITERIA	SAT	UNSAT	N/A
1.	General	No damage			
	Condition Checks	No loose parts			
		No excessive oil leaks on floor under forklift. If leak is identified, refer to Attachment 2			
		Cleanliness, no trash			
		Accumulation of combustible liquids removed			
		Engine compartment clean and no damage visible			
		Fuel hoses and lines clean, and no damage visible			
		No buildup of combustible materials			
2.	Tires, Wheels, Brakes	Tires are in good condition; NOT excessively worn or cracked. All accessible wheel lugs installed and properly tightened per torque indicators			
		Brake pedal has approximately 2 to 3 inches of free play – readily felt by hand			
		Brake pedal is NOT springy or spongy and does NOT stick or bind when pressed			
		Parking brake does NOT bind when set or released			
3.	Battery	Free of acid spills or leaks			
	Compartment	No loose or missing caps or cables			
		Battery disconnect switch is in the ON position, if installed			
4.	Fire Extinguisher	Inspection is up to date and charged			

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#### HWFP TSR

## (\$) Attachment 1 - CH Waste Handling Toyota Forklifts Preoperational Checks [HWFP Table E-1] [SAC 5.5.1]

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	INSPECTION	CRITERIA	SAT	UNSAT	N/A
5.	Engine	Engine oil level is in proper range on dipstick			
		Engine coolant level is in proper range in reservoir			
		Air cleaner trap indicator is below the white line (if installed)			
		NOTE			
	The hydraulic syst	tem reservoir level is checked with the forks or attachr	ments lov	vered to the	
6.	Hydraulic	Reservoir level is above the <b>LOW</b> mark			
	System	No excessive leaks from hoses, couplings, or fittings. If leak is identified, refer to Attachment 2			
7.	Upright and Lift	No obvious wear, damage, or missing parts			
	Chains	No slack or broken chains			
8.	Forks/	No obvious cracks, breaks, bends, twists, or wear			
	Attachments in Use	Forks are correctly installed and locked in the proper position			
	- SWB Forklift Attachment	No obvious cracks, breaks, bends, twists, or wear			
	Attacriment	Properly secured to forklift			
		When installed, fork position control is not operational			
	- Push/Pull Attachment	No obvious cracks, breaks, bends, twists, or wear			
	Attacriment	Hydraulic hoses are not crushed, damaged, or leaking			
		Properly secured to forklift			
		When installed, attachment retracts and extends push/pull clamping device			
	- Drum Handler	No obvious cracks, breaks, bends, twists, or wear			
	Tandel	Safety chain is installed around load backrest			

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#### HWFP TSR

## (\$) Attachment 1 - CH Waste Handling Toyota Forklifts Preoperational Checks [HWFP Table E-1] [SAC 5.5.1]

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	INSPECTION	CRITERIA	SAT	UNSAT	N/A
9.	Forklift Start/ Operating	Seat belt is in good condition and belt fastens properly			
	Checks	Seat adjusts to provide easy access to all controls			
		Seat locking mechanism locks			
		Steering wheel tilt adjusts for easy access to all controls			
		Directional control lever is in NEUTRAL			
		Hoist control lever is in NEUTRAL POSITION			
		Tilt control lever is in NEUTRAL POSITION			
		Fork position lever is in NEUTRAL POSITION			
		Side shift lever is in NEUTRAL POSITION			
		Press service brake pedal			
		Forklift starts when turned to ON			
		All instrument indications are within their normal ranges			
		All fault/warning lights are OFF			
		Sufficient fuel is available for operation			
		Immediately investigate any unusual noises			
		Horn sounds			
		Front lights illuminate			
		Back lights illuminate			
		Hoist control raises and lowers forks/attachment			
		Tilt control tilts forks/attachment forward and backward			
		Side shift control moves forks left and right			
		Fork position control moves forks in and out			

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#### HWFP TSR

## (\$) Attachment 1 - CH Waste Handling Toyota Forklifts Preoperational Checks [HWFP Table E-1] [SAC 5.5.1]

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	INSPECTION	CRITERIA	SAT	UNSAT	N/A	
10.	Brakes/	Forks raise 6-10 inches above the floor				
	Operating Checks	Parking brake engages.				
	Oncoks	Service brake pedal releases				
		Attempts to move forklift forward/backward while parking brake engaged, do NOT succeed				
		Parking brake releases				
		Using directional control lever, select a direction to travel				
		Accelerator pedal moves forklift when pressed				
		Forklift steering operates smoothly				
		Brakes are in good condition				
		Backup alarm is operational while moving in reverse				
		Forklift travel suspends when operator rises from seat				
		Brake lights illuminate when pedal is pushed				
		Forklift stops when service brake is applied				
		Parking brake sets				
11.	Fire	NOTE				
	Suppression System	Failure of FSS in the following step does not require entry into LCO 3.1.2. However, the forklift in use cannot be selected on EA04AD3001-SR10.				
		(\$) Fire suppression system electronic display panel green status LED is illuminated on the vehicle [LCO 3.1.2] [SR 4.1.2.1]				

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#### **Attachment 2 - Leak Categorization**

	TYPE 0	TYPE 1	TYPE 2	TYPE 3	TYPE 4
Indications:	No indications of moisture – dry	Dampness around hoses or engine compartments, including oil sheen.	Dripping from a hose	Spraying from a hose or oil running down firewall, etc.	Ruptured hose (e.g., oil line, fuel line)
Status	Ope	rational	DC	NOT OPERA	ATE
Required Actions:	None	RECORD leak Type 1 and the source of the leak in Equipment Logbook.	with an with WI Out of S  [B] SUBMI [C] RECOR number [D] WHEN comple	<ul> <li>[A] TAG equipment out of service with an OOS Tag in accordance with WP-04-AD3016, Equipment Out of Service Process.</li> <li>[B] SUBMIT AR for repairs.</li> <li>[C] RECORD leak type and AR number in Equipment Logbook.</li> </ul>	